

2015-2016 Seedling Order Form

GEORGE O. WHITE STATE FOREST NURSERY



Serving nature and you®

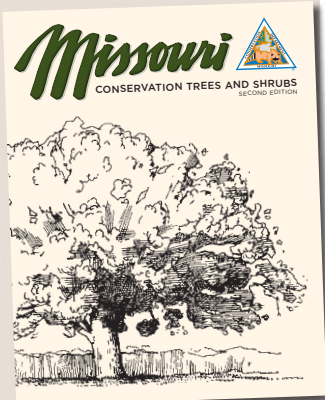
Plan Ahead and Order Early!

Although we accept orders from Nov. 1, 2015, through April 15, 2016, we always sell out of some species quickly. To get the plants you want, send your order as soon as possible. Otherwise, you can select the option to have us substitute suitable species for you.

Before undertaking any extensive planting project, consult the Conservation Department's regional office in your area.

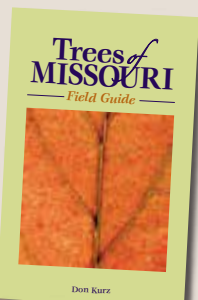
Free! Newly Revised Conservation Trees & Shrubs

For information on planting, care, and uses of conservation seedlings, order your free copy of *Missouri Conservation Trees and Shrubs*. Newly revised in 2015, this 40-page guide includes detailed descriptions, illustrations, and range maps for 54 of the nursery's most popular species. Write to MDC, *Missouri Conservation Trees and Shrubs*, PO Box 180, Jefferson City, MO 65102, or email pubstaff@mdc.mo.gov.



To purchase the following books, call toll free 1-877-521-8632, or go to mdcnatureshop.com. Prices do not include shipping, handling, and tax.

- ~ *Trees of Missouri Field Guide* (soft cover \$7.50)
- ~ *Shrubs and Woody Vines of Missouri* (soft cover \$16.50)
- ~ *Shrubs and Woody Vines of Missouri Field Guide* (soft cover \$7.50)
- ~ *Tried & True Missouri Native Plants For Your Yard* (soft cover \$6)



Three Ways to Order

Submit orders by Internet, mail, or fax. **We do not accept phone orders.** If you order by mail or fax, **do not send payment with your order.**

Better Online Ordering

Here at the George O. White Nursery, we strive to provide excellent customer service. This year, we've made online ordering more efficient, allowing you to view your order history, add or cancel species, and pay with a credit or debit card. Just visit mdc.mo.gov/seedlings to get started. You can create a user profile, or sign in as a guest. But be advised, guest users won't have the convenience of viewing order history and adding or cancelling species. If you have any questions about the updated online ordering option, please feel free to contact us at 573-674-3229.

Cost

Prices range from \$0.16 to \$0.80 per seedling. See pricing chart on Page 3. Sales tax of 6.100 percent will be added to all orders unless you provide a tax exemption certificate. We add an \$8 handling charge to each order. Out-of-state shipping is \$10 per 100 seedlings with a \$10 minimum.

| Price per seedling | | | |
|--|----------------------|-------------------------------|--------|
| Species | Available in 10 only | Available in increments of 25 | |
| | | 25-75 | 100+ |
| Eastern white pine 2-0, Shortleaf pine, Loblolly pine, Pitch X loblolly pine | \$0.60 | \$0.28 | \$0.16 |
| Eastern white pine 3-0, Red pine, Norway spruce, Eastern red cedar | \$0.80 | \$0.40 | \$0.32 |
| Hardwood trees and shrubs | \$0.80 | \$0.40 | \$0.32 |
| Orders of multiple species of 10s or 25s cannot be combined for volume discount. | | | |

Billing Card

After we process your order, we'll send you a billing card by mail or email. You should receive it within two weeks of submitting your order. If you do not receive a billing card, call 573-674-3229. Check your billing card when you get it. It will show the species available for pick up or delivery, the price per each bundle, and the total amount charged for your order. **If a species is sold out when we receive your order, we will not bill you for that species.** If the sold-out seedlings become available later, we will notify you. For a recorded message about possible shipping delays and available inventory, call 1-800-392-3111 after Dec. 1, 2015.

Order online or check availability at mdc.mo.gov/seedlings

Payment

The billing card will have a due date, as well as information on how to pay for your seedlings. We accept check, money order, Visa, MasterCard, and Discover. *(A convenience fee for any credit/debit card transaction is collected by a third-party vendor, Collector Solutions, Inc., not the Missouri Department of Conservation.)* Please write your order number on your check. **All orders must be paid in full before they can be shipped or picked up.** If we don't receive payment within five days after the due date, we will cancel the order and sell the stock.

Heritage Card Discount

If you have a Heritage Card, you can receive a 15-percent discount up to \$20 off your seedling order. Make sure to include your Heritage Card number when you place your order. This discount does not apply to handling charges and sales tax. The card also gives you a 15-percent discount on selected retail merchandise sold at Department facilities. Heritage Cards can be purchased for \$2 wherever hunting and fishing permits are sold, or by calling 1-800-392-4115.

Order Changes and Refunds

To request an order change, contact the nursery, or if you have created a user profile online, please login and make appropriate changes. Adjustments or refunds will be made only at the discretion of the nursery. No refunds will be given for orders cancelled after May 1, 2016. No refund of \$2.50 or less will be made. Please notify us promptly of any address change and include your order number.

Delivery

You can have your trees shipped, or you can pick them up at the nursery. Please select the delivery method and the week you want your trees delivered. We ship with UPS only and cannot process PO box deliveries. We will ship orders late February through early May unless you make other arrangements. Most orders arrive within 48 hours after they leave the nursery, but this cannot be guaranteed. If any or all of your order has not arrived within two weeks of your selected delivery date, please contact the nursery.



Contact Information

George O. White State Forest Nursery
Missouri Department of Conservation
PO Box 119
Licking, MO 65542
573-674-3229
Fax: 573-674-4047

Seedlings

We provide mainly 1-year-old bare-root seedlings. A few species are 2 to 3 years old, and they are noted as 2-0 and 3-0 in the pricing chart. The size of the seedlings varies greatly depending on the species. Seedlings are provided in quantities of 10, 25, or 100 trees per species.

Spacing of Seedlings

When planting seedlings, consider their primary purpose and the height and spread to which they will eventually grow. As a general rule, seedlings should be spaced as shown below:

| Purpose | Spacing |
|-----------------|-----------|
| Erosion control | 3–6 feet |
| Reforestation | 8–12 feet |
| Wildlife shrubs | 3–6 feet |
| Windbreaks | 5–12 feet |

| Quantity of Seedlings per Acre | |
|--------------------------------|--------------------|
| Spacing in feet | Seedlings per acre |
| 3x3 | 4,840 |
| 4x4 | 2,722 |
| 5x5 | 1,742 |
| 6x6 | 1,210 |
| 7x7 | 889 |
| 8x8 | 681 |
| 9x9 | 538 |
| 10x10 | 436 |
| 12x12 | 302 |
| 15x15 | 194 |

If you submit an order by mail, fax, or via the Internet, you should receive a billing card from us within about two weeks. If you DO NOT receive a billing card from us, call the nursery at 573-674-3229 to inquire about the status of your order.

Conifer Species



Eastern red cedar



Eastern white pine



Loblolly pine



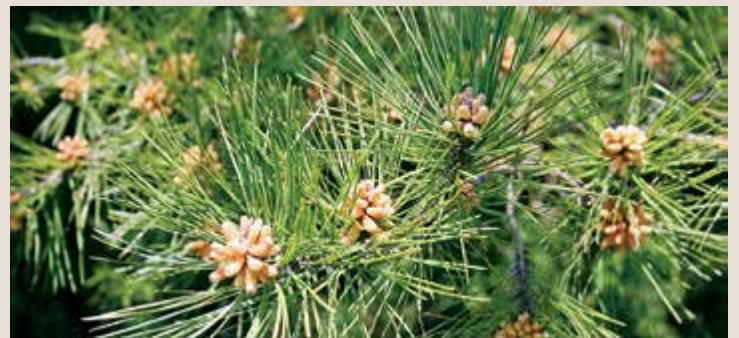
Norway spruce



Red pine



Pitch x loblolly pine



Shortleaf pine

Hardwood Species



Black walnut



Bald cypress



Black cherry



Black gum

| Price Per Seedling | | | |
|--|----------------------|-------------------------------|--------|
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| | | 25–75 | 100+ |
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| Hardwood trees and shrubs | \$0.80 | \$0.40 | \$0.32 |
| Orders of multiple species of 10s or 25s cannot be combined for volume discount. | | | |

| Species | Common Uses | | | | Wildlife Benefits | | | Other Important Facts |
|--|-------------|-----------------|---------------|---------------------|-------------------|-------|-----------------------|---|
| | Wind Break | Erosion Control | Reforestation | Wetland Restoration | Food | Cover | Mature Height in Feet | |
| Conifer Species | | | | | | | | |
| Eastern red cedar (<i>Juniperus virginiana</i>) | ✓ | | | ✓ | ✓ | ✓ | 60 | Eastern red cedar's aromatic wood is valuable for closet lining and novelties. Excellent for wildlife and windbreak plantings. Red cedar may become an invasive problem in your pastures and idle fields. It spreads easily. |
| Eastern white pine* 2-0 (<i>Pinus strobus</i>) (Average size 8–10 inches) | ✓ | | ✓ | | | ✓ | 80–100 | A tall, stately tree with an attractive conical shape and branches nearly to the ground in open stands. Makes an excellent windbreak throughout the state. Adapts to a variety of sites, but prefers moderately moist, sandy loam soils. <i>*White pine may have difficulty surviving with Missouri's dry climate and clay soils.</i> |
| Eastern white pine* 3-0 (<i>Pinus strobus</i>) (Average size 12–18 inches) | ✓ | | ✓ | | | ✓ | 80–100 | A tall, stately tree with an attractive conical shape and branches nearly to the ground in open stands. Makes an excellent windbreak throughout the state. Adapts to a variety of sites, but prefers moderately moist, sandy loam soils. <i>*White pine may have difficulty surviving with Missouri's dry climate and clay soils.</i> |
| Loblolly pine (<i>Pinus taeda</i>) | ✓ | | ✓ | | | ✓ | 90 | Native throughout the southern United States. Introduced and grows well in southern Missouri. A fast-growing pine that is an important timber tree for lumber and pulp. Similar in appearance to shortleaf pine, but has longer needles and a larger cone. Grows on a wide variety of sites including poor, dry upland, and rich bottomland soils. |
| Norway spruce* (<i>Picea abies</i>) | ✓ | | | | | ✓ | 50 | Excellent tree for windbreak and wildlife cover. Although not immune to deer damage, deer generally leave this evergreen alone. This fast-growing spruce grows best on well-drained soils and will tolerate a lot of shade. It will retain its dense drooping branches as the tree matures. <i>*Norway spruce may have difficulty surviving with Missouri's dry climate and clay soils.</i> |
| Pitch x loblolly pine (<i>Pinus rigida</i> x <i>Pinus taeda</i>) | ✓ | ✓ | ✓ | | | ✓ | 60 | This hybrid pine combines the cold hardiness and drought tolerance of pitch pine with the larger mature size, moist soil tolerance, and fast growth of loblolly pine. Develops a dense, extensive root system that helps it adapt to extreme soil conditions. The long, naturally shed needles are used for pine straw mulch in the landscaping industry. Does best in full sun to partial shade. |
| Red pine* (<i>Pinus resinosa</i>) | ✓ | | ✓ | | | ✓ | 80 | A long-needled pine native to the Lake States and New England. Best used for reforestation and windbreaks north of Missouri River. <i>*Red pine may have difficulty surviving with Missouri's dry climate and clay soils.</i> |
| Shortleaf pine (<i>Pinus echinata</i>) | ✓ | | ✓ | | | ✓ | 80–100 | Only pine native to Missouri. Grows to 2–3 feet in diameter. Does very well on dry, upland sites in the Ozarks. Probably should not be planted north of the Missouri River. |
| Hardwood Species | | | | | | | | |
| Bald cypress (<i>Taxodium distichum</i>) | ✓ | ✓ | ✓ | ✓ | | | 90–100 | Large trees that may live more than 1,000 years. Commonly associated with southeastern swamps, but adapt easily to a wide range of sites. Young trees grow rapidly on good sites and may reach 20 feet in height in 10 years. Extremely durable wood. |
| Black cherry (<i>Prunus serotina</i>) | | ✓ | ✓ | | ✓ | ✓ | 60 | Found statewide on a variety of sites including moist, fertile bottoms and dry, gravelly upland soils. The lumber is second only to walnut in demand as a fine hardwood. The flowers are white clusters 2 to 4 inches long. The red-to-black fruits ripen in August and are abundant nearly every year. Numerous wildlife species eat the fruit. Leaves turn yellow to red in the fall. |
| Black walnut (<i>Juglans nigra</i>) | | | ✓ | ✓ | ✓ | | 80–90 | The “black gold” of Missouri. Valued for its lumber and nuts, it is extensively cultivated statewide. Grows rapidly on deep, rich, alluvial soils. Growth rates decline rapidly in poor soils. |
| Black gum (<i>Nyssa sylvatica</i>) | | | ✓ | ✓ | ✓ | ✓ | 65 | Medium-sized tree found in southern Missouri, but can be planted successfully statewide. Grows on deep, moist soils and along streams. An attractive tree with shiny dark-green leaves, blue-black fruits, and brilliant red fall color. Older, larger trees often contain hollows that are used by cavity-nesting wildlife. |



Butternut



Cottonwood



Hackberry



Mixed hickory



Shellbark hickory



Kentucky coffee tree



Black oak



Bur oak



Chinkapin oak



Cherrybark oak



Northern red oak



Nuttall's oak



Overcup oak



Pin oak



Shumard oak



Swamp chestnut oak



Swamp white oak



White oak



Willow oak

Courtesy Missouri Botanical Garden PlantFinder

| Species | Common Uses | | | | Wildlife Benefits | | | Other Important Facts |
|--|-------------|-----------------|---------------|---------------------|-------------------|-------|-----------------------|--|
| | Wind Break | Erosion Control | Reforestation | Wetland Restoration | Food | Cover | Mature Height in Feet | |
| Butternut (<i>Juglans cinerea</i>) | | | ✓ | ✓ | ✓ | | 60 | Sometimes called white walnut because the lumber is identical to black walnut in grain and texture, but not color. This is a small- to medium-sized tree, 50 to 60 feet tall at maturity. It was typically found over most of the state on deep, moist soils along streams. In recent years, a disease called butternut canker has eliminated the tree in some areas. The seed is long and narrow. The nut is oily, but sweet and edible. Leaves are very similar to black walnut. |
| Cottonwood (cuttings) (<i>Populus deltoides</i>) See how to plant cuttings on Page 15. | ✓ | ✓ | ✓ | ✓ | | ✓ | 100 | One of the largest and fastest-growing trees in the eastern United States. Grows best in deep, well-drained bottomland soils. Can reach diameters of 3–4 feet. |
| Hackberry (<i>Celtis occidentalis</i>) | ✓ | ✓ | ✓ | ✓ | ✓ | | 90 | Common bottomland species found statewide. Does very well in prairie regions. Birds eat the fruit. |
| Mixed hickory (<i>Carya spp.</i>) | | | ✓ | | ✓ | | 70 | This mix is dominated by shagbark, but also includes bitternut, pignut, black, and shellbark hickories. Good selection for wildlife and reforestation projects where a variety of nut sizes and tree forms is desired. |
| Shellbark hickory (<i>Carya laciniosa</i>) | | | ✓ | ✓ | ✓ | | 90 | A large scaly bark hickory that grows best on rich bottomland soils. It produces the largest nut of any hickory. Not found naturally in the Ozarks, but will grow statewide. |
| Kentucky coffee tree (<i>Gymnocladus dioica</i>) | ✓ | ✓ | ✓ | | | | 70–90 | Medium to large tree preferring good soil. Found statewide, but most common in western Missouri. Large, persistent seedpods and short, heavy twigs make this legume distinctive in winter. |
| Black oak (<i>Quercus velutina</i>) | | | ✓ | | ✓ | ✓ | 85 | Found statewide, but most common in the Ozarks. Will grow on dry, poor upland sites, but grows best on well-drained soil. Good acorn producer. |
| Bur oak (<i>Quercus macrocarpa</i>) | | ✓ | ✓ | ✓ | ✓ | | 80 | Large acorns with fringed caps are characteristic of this oak. Grows statewide on a variety of sites including dry uplands and moist lowlands. Reaches 3–4 feet in diameter. |
| Cherrybark oak (<i>Quercus falcata</i> var. <i>pagodifolia</i>) | | ✓ | ✓ | ✓ | ✓ | ✓ | 100 | Southeastern lowland oak that should be planted in Missouri Bootheel area. Prefers rich, well-drained bottomland soils. Large, fast growing, well-formed, and commercially important. |
| Chinkapin oak (<i>Quercus muehlenbergii</i>) | | | ✓ | | ✓ | ✓ | 70 | Found throughout Missouri mostly on dry upland woods, along bluffs, and in glades. It tolerates very dry, rocky soil, but will grow on a wide variety of sites. This tree is in the white oak group, has silver-gray bark, and long, thin leaves. The acorns are nearly black, about ¾ to 1 inch long and are a favorite food source for turkey and deer. |
| Northern red oak (<i>Quercus rubra</i>) | ✓ | ✓ | ✓ | | ✓ | ✓ | 90 | One of the most widespread and commercially important of the oaks. Found on a wide variety of sites statewide. Grows best in fertile, sandy loam soils. |
| Nuttall's oak (<i>Quercus texana</i>) | | ✓ | ✓ | ✓ | ✓ | ✓ | 90–100 | Relatively fast-growing oak that is found in the Southeastern lowlands. Does well on heavy, poorly drained clay soils. General appearance somewhat resembles pin oak. Probably should not be planted outside the Bootheel. |
| Overcup oak (<i>Quercus lyrata</i>) | | ✓ | ✓ | ✓ | ✓ | ✓ | 70 | Occurs naturally in southeastern Missouri and up the Mississippi River to St. Louis. Grows on wet, poorly drained sites and is one of the most flood-tolerant species. This slow-growing tree produces acorns that are almost enclosed in the cap. |
| Pin oak (<i>Quercus palustris</i>) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 70–80 | This fast-growing oak grows naturally on poorly drained, heavy bottomland sites statewide. It is often used for landscaping as it will grow well on a wide variety of sites, from wet to dry. The small acorns are eaten by many mammals and birds, and they are an important winter food for migrating waterfowl. |
| Shumard oak (<i>Quercus shumardii</i>) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 80–100 | A large, commercially valuable oak found naturally in all but the northern third of Missouri. Frequently grows in association with northern red oak and white oak. Can be planted on a wide variety of sites. |
| Swamp chestnut oak (<i>Quercus michauxii</i>) | | | ✓ | | ✓ | ✓ | 85 | Also called cow oak and basket oak. A large well-formed tree, which grows in well-drained soils above the floodplain in southeastern Missouri. Able to withstand flooding for short periods during the dormant season. |
| Swamp white oak (<i>Quercus bicolor</i>) | | ✓ | ✓ | ✓ | ✓ | ✓ | 70 | A fairly fast-growing, medium-sized tree that may reach a diameter of 3 feet. Grows naturally in the northern two-thirds of the state along low hills and stream bottoms, but is adaptable to a wide variety of sites. Despite its name, this species does not naturally grow in swamps. The acorns are one of the favored fall foods for deer, turkey, and many other wildlife species. |
| White oak (<i>Quercus alba</i>) | | | ✓ | | ✓ | ✓ | 85 | Found statewide. This important hardwood lumber tree is often an excellent acorn producer. Does best on deep well-drained soils, but does well on dry, poor upland sites. Slow growth rate, but may live for hundreds of years. |
| Willow oak (<i>Quercus phellos</i>) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 70 | This tree gets its name from the long, slender, willow-like leaves. Native to southeastern Missouri, but will grow statewide. Does best on poorly drained soils, but can be planted on a variety of sites. Fast-growing oak with small acorns. |



Osage orange



Pecan



Persimmon



Red mulberry



River birch



Sandbar willow



Silver maple



Sweet gum



Sycamore



Tulip poplar



Arrowwood



American beautyberry



Blackberry



Black chokeberry



Black haw



Buttonbush

| Species | Common Uses | | | | Wildlife Benefits | | | Other Important Facts |
|---|-------------|-----------------|---------------|---------------------|-------------------|-------|-----------------------|---|
| | Wind Break | Erosion Control | Reforestation | Wetland Restoration | Food | Cover | Mature Height in Feet | |
| Osage orange (<i>Maclura pomifera</i>) | ✓ | | ✓ | | ✓ | ✓ | 40–50 | The familiar hedge or hedgeapple tree of Missouri's prairie regions. Hard, durable wood is used for fence posts. Has thorns. |
| Pecan (<i>Carya illinoensis</i>) | | | ✓ | ✓ | ✓ | | 90 | Most noted for edible nuts, but also is valued for wood. Does best on moist, well-drained river bottoms. Seedlings are grown from native wild seed. |
| Colby pecan* (<i>Carya illinoensis</i>) | | | ✓ | ✓ | ✓ | | 90 | Colby pecan variety resists freezes well. The original selection of this pecan came from south central Illinois, east of St. Louis, Missouri. It's a medium cracker and shelling quality (generally not in perfect halves). This variety is vigorous and productive. There are about 52 nuts per pound and the seedlings are good rootstock for grafting. *These seedlings grew from seed collected from Colby pecan trees that were open pollinated. |
| Peruque pecan* (<i>Carya illinoensis</i>) | | | ✓ | ✓ | ✓ | | 90 | Peruque pecan variety is a consistent producer. The original selection of this pecan came from St. Charles, Missouri. It's a smaller nut that is an excellent cracker with a very high percentage of nut meat to shell. There are about 82 very thin shelled nuts per pound. It's an early pollen producer that will help pollinate other varieties. *These seedlings grew from seed collected from Peruque pecan trees that were open pollinated. |
| Persimmon (<i>Diospyros virginiana</i>) | ✓ | ✓ | ✓ | ✓ | ✓ | | 60–70 | A small- to medium-sized tree whose fruit is valuable to people and wildlife. Among the hardest of North American woods. Male and female flowers are borne on separate plants, so plant several trees near each other. |
| Red mulberry (<i>Morus rubra</i>) | | | ✓ | | ✓ | | 50 | Medium-sized tree found statewide. Prefers good soil, but can be found on poor sites. Many animals eat the fruit. |
| River birch (<i>Betula nigra</i>) | ✓ | ✓ | | ✓ | | ✓ | 60 | A small- to medium-sized streambank tree useful for bank stabilization. Peeling, flaking bark gives the tree an attractive appearance in winter. Grows statewide. |
| Sandbar willow (cuttings) (<i>Salix interior</i>) See how to plant cuttings on Page 15. | | ✓ | | ✓ | | ✓ | 30 | Shrub-like, thicket-forming willow found statewide. Occurs on sand bars and muddy stream banks. Good soil binder and bank stabilizer that prevents erosion. Leaves and twigs are browsed by deer. |
| Silver maple (<i>Acer saccharinum</i>) | | ✓ | ✓ | ✓ | | ✓ | 90 | A large bottomland "soft" hardwood. Grown commercially for wood. Perhaps overused as a fast-growing shade tree. Because of the wood's brittleness, breakage in ice and wind is a problem. |
| Sweet gum (<i>Liquidambar styraciflua</i>) | ✓ | ✓ | ✓ | ✓ | | | 80–100 | Native to the lowlands and foothills of southern Missouri. Planted extensively statewide. Does best in deep, moist soils. Yellow, orange, and red fall color. Valuable timber tree that can grow 3–4 feet in diameter. |
| Sycamore (<i>Platanus occidentalis</i>) | | ✓ | ✓ | ✓ | | ✓ | 80–100 | A large bottomland, streambank tree. Can be used as a bank stabilizer along with other bottomland species. Shows a great deal of resistance to beaver damage and wet soil conditions. |
| Tulip poplar (<i>Liriodendron tulipifera</i>) | ✓ | | ✓ | | | | 90–100 | One of the more valuable hardwoods. May reach diameters approaching 2 feet. Found naturally on moist, well-drained soils in southeastern Missouri. Planted widely as an ornamental. |
| Wildlife Shrubs | | | | | | | | |
| Arrowwood (<i>Viburnum recognitum</i>) | | | | | ✓ | | 16 | This shrub is native to the south-central Ozarks but should do well statewide. It has showy clusters of white flowers in May-June, and the blue-black berries ripen in the fall. Many species of birds and mammals eat the fruit. This shrub attains a spread of 10 to 15 feet. Grows best on well-drained soils and will tolerate partial shade to full sun. Multiple plants are sometimes used for visual screens. |
| American beautyberry (<i>Callicarpa americana</i>) | | ✓ | | | ✓ | ✓ | 10 | This rapidly growing, rounded shrub has a 4- to 8-foot spread. Tops will sometimes die back in cold winters, but flowering is on new growth, so dieback or drastic pruning will not affect flowering. Flowers are white to pale pink. The large, pale-green leaves turn yellow in the fall. Showy, purple fruits are attractive to birds and persist on the shrubs into late fall. Grows well in partial shade and on a wide variety of soil types. |
| Blackberry (<i>Rubus spp.</i>) | | | | | ✓ | ✓ | 5 | Found throughout the state in woods, open fields and glades. Provides habitat for many wildlife species. Edible fruit ripens in July. Stems have thorns. |
| Black chokeberry (<i>Aronia melanocarpa</i>) | | ✓ | | ✓ | ✓ | ✓ | 10 | This small shrub, with a spread of 5 to 6 feet, has large, shiny dark-green leaves that turn purple to orange and red in the fall. Flowers are white with five petals, about ½ inch across. The tart purplish-black fruit is about ¼ inch across and is best used to make jams or jellies. The juice is very high in vitamin C and various antioxidants. Does best in full sun or partial shade. Will grow on a wide variety of soils from wet to very dry. |
| Black haw (<i>Viburnum prunifolium</i>) | | | | | ✓ | ✓ | 20 | This shrub is native statewide. Leaves are dark-green and flowers are rounded white clusters 2 to 4 inches across. Fruit is bluish-black clusters of ½-inch-long berries, each containing one large seed. A variety of animals feed on the fruits, leaves, and stems. Grows well in both sun or shade. |
| Buttonbush (<i>Cephalanthus occidentalis</i>) | | ✓ | | ✓ | ✓ | ✓ | 18 | Found throughout the state in low, wet woods, swamps, and along borders of streams and ponds. The flowers are fragrant, white, round clusters about 1 to 1½ inches across and are a favorite nectar source for bees. Many birds eat the nutlets and nest in the branches. Does best on moist sites. |



Deciduous holly



Flowering dogwood



Gray dogwood



Rough-leaved dogwood



Silky dogwood



Elderberry



False indigo



White fringetree



Washington hawthorn



Hazelnut



Nannyberry



Ninebark



Ohio buckeye



Pawpaw



Redbud



Rose mallow

| Species | Common Uses | | | | Wildlife Benefits | | | Other Important Facts |
|---|-------------|-----------------|---------------|---------------------|-------------------|-------|-----------------------|--|
| | Wind Break | Erosion Control | Reforestation | Wetland Restoration | Food | Cover | Mature Height in Feet | |
| Deciduous holly (<i>Ilex decidua</i>) | ✓ | | | ✓ | ✓ | ✓ | 25 | Also called possumhaw, this small- to medium-sized tree produces regular crops of brilliant red fruit on the female plant. The male and female flowers are borne on separate plants, so several trees should be planted near each other. After the leaves fall, the fruit is visible for long distances and helps feed birds in winter and early spring when other foods are depleted. |
| Flowering dogwood* (<i>Cornus florida</i>) | | | | | ✓ | ✓ | 40 | It's the Missouri State Tree. Seedlings grown from seed collected from wild white-flowered trees. * <i>The survival of this small-to-medium shade tree is very low. For best results plant in shade, not direct sunlight.</i> |
| Gray dogwood (<i>Cornus racemosa</i>) | ✓ | | | | ✓ | ✓ | 10 | Similar in appearance to rough-leaved dogwood, this tree is smaller and has smooth leaves. Found widely scattered statewide on both moist and rocky sites. Forms thickets by root suckers. Provides excellent wildlife food and cover. |
| Rough-leaved dogwood (<i>Cornus drummondii</i>) | ✓ | | | | ✓ | ✓ | 20 | This thicket-forming shrub found statewide on a wide variety of soils survives poor sites better than other dogwoods. Leaves are rough textured. It does not have large white flowers like flowering dogwoods, but small white flowers appear in May. The shrub has white berries and purple-to-red fall color. |
| Silky dogwood (<i>Cornus obliqua</i>) | ✓ | | | ✓ | ✓ | ✓ | 9 | This species, also called swamp or pale dogwood, is found statewide except in the lowlands of the Bootheel. Grows in moist ground along streams, rocky banks, spring branches, swamps, wet prairies, and low, wet woods. The flowers are similar to rough-leaved and gray dogwood. The blue fruit is eaten by many wildlife species. Leaves are longer and narrower than other dogwoods. |
| Elderberry (<i>Sambucus canadensis</i>) | | ✓ | | ✓ | ✓ | ✓ | 10 | Found throughout the state in open woods, fence rows, roadsides, and along borders of streams and ponds. The flowers are large, showy, flat-topped white clusters that appear in late May to June. The dark-purple berries are edible and make an excellent jelly. Many species of birds and mammals eat the fruit, and deer browse the leaves and branches. Will tolerate both wet and dry sites. |
| False indigo (<i>Amorpha fruticosa</i>) | | ✓ | | ✓ | ✓ | ✓ | 12 | Found statewide in moist ground along streams, rocky banks, and low, wet woods. The flowers are 2 to 6 inches long with dense clusters of purple tube-shaped flowers. This shrub is in the legume family, and the seeds are eaten by quail and other wildlife. Bees and butterflies are attracted to the flowers. |
| White fringetree (<i>Chionanthus virginicus</i>) | | | | | ✓ | ✓ | 20 | Native shrub or small tree has a spread of 10 to 15 feet. Found in southern Missouri along wooded bluffs but is very adaptable statewide. The white showy, fragrant flowers appear in April, and in some years the entire tree will be covered in the flowers. The fruit is oliveline in appearance and turns bluish-black in the fall. The long, lance-shaped leaves turn yellow in the fall. |
| Washington hawthorn (<i>Crataegus phaenopyrum</i>) | ✓ | | | | ✓ | ✓ | 25 | A small- to medium-sized tree with showy white flowers in spring and bright red fruit in the fall. |
| Hazelnut (<i>Corylus americana</i>) | ✓ | ✓ | | | ✓ | ✓ | 10 | Also called American filbert, this thicket-forming shrub is found throughout the state on a wide range of soils and sites. The nut is consumed by people and wildlife. |
| Nannyberry (<i>Viburnum lentago</i>) | ✓ | | | | ✓ | ✓ | 18 | Nannyberry is native to northeast Missouri but will grow statewide. The flowers are rounded white clusters 3 to 5 inches across. Fruit is dark-blue clusters of ¾- to ½-inch-long berries each containing one large seed. A variety of animals feed on the fruits, leaves, and stems. Grows well in both sun and shade. |
| Ninebark (<i>Physocarpus opulifolius</i>) | ✓ | ✓ | | ✓ | | ✓ | 8 | A streamside shrub found over much of the state. Forms a massive root system quickly after planting, making it useful to control erosion on streambanks. It is also used as an ornamental. Its name is taken from the way the mature bark curls away from the stem resembling the number 9. |
| Ohio buckeye (<i>Aesculus glabra</i>) | | | | ✓ | ✓ | | 50 | Found statewide, it is among the first trees to leaf out and flower in spring and lose its leaves in the fall. Large greenish-yellow flowers are attractive to hummingbirds. The seeds, which are large, shiny, and dark brown, are sometimes carried for good luck and to prevent rheumatism. Tolerates lots of shade. |
| Pawpaw (<i>Asimina triloba</i>) | | | | | ✓ | ✓ | 20 | This small tree has large, drooping, pear-shaped leaves that are slightly aromatic. Inconspicuous flowers are green upon opening but turn maroon as they develop. Edible yellow-green fruits are 3 to 6 inches long and ripen in September. Leaves turn bright yellow in fall. |
| Redbud (<i>Cercis canadensis</i>) | ✓ | | | | ✓ | ✓ | 30 | A small-to-medium understory tree with showy pink flowers in early spring. This legume is an attractive addition to wildlife or windbreak plantings. |
| Rose mallow (<i>Hibiscus lasiocarpus</i>) | | | | ✓ | ✓ | ✓ | 8 | This tall perennial is found in the south half of the state along sloughs, ponds, and streams. Excellent for wetland plantings, pond edges, and other wet sites. Plants die back to the root collar each winter. Large, showy white or sometimes pink flowers bloom from July through September. The seeds are eaten by ducks, quail, and many other birds. |



Serviceberry



Slender bush clover



Spicebush



Aromatic sumac



Smooth sumac



Wild plum



Witch-hazel

| Species | Common Uses | | | | Wildlife Benefits | | | Other Important Facts |
|---|-------------|-----------------|---------------|---------------------|-------------------|-------|-----------------------|---|
| | Wind Break | Erosion Control | Reforestation | Wetland Restoration | Food | Cover | Mature Height in Feet | |
| Serviceberry (<i>Amelanchier arborea</i>) | | | | | ✓ | ✓ | 25 | The showy white flowers of this large shrub/small tree are the first to appear in Missouri woodlands each spring. Reddish sweet-tasting fruits are edible but quickly consumed by wildlife. Fall color varies from yellow to orange to red. Found statewide, grows best in partial shade along woodland edges. |
| Slender bush clover (<i>Lespedeza virginica</i>) | | | | | ✓ | ✓ | 3 | Grows statewide on a variety of sites. This warm-season perennial, which dies back to roots each winter, has small, purple flowers. Seeds and stems are eaten by many wildlife species. |
| Spicebush (<i>Lindera benzoin</i>) | | ✓ | | | ✓ | ✓ | 12 | Found naturally in the south half of the state in low or moist ground along streams, ravine bottoms, and low, wet woods. The flowers are small, yellow, and fragrant. Leaves are aromatic when crushed. Seed is bright red and is eaten by many birds and mammals. Will tolerate partial shade to full sun. This shrub will often grow as wide as it is tall. |
| Aromatic sumac (<i>Rhus aromatica</i>) | ✓ | ✓ | | | ✓ | ✓ | 8 | A shrub found over much of the state, usually in thickets. Bright-red fruit ripens in late spring or early summer and is eaten by many birds. Also called fragrant sumac. |
| Smooth sumac (<i>Rhus glabra</i>) | | | | | ✓ | ✓ | 20 | Thicket-forming shrub or small tree is found statewide in old fields, prairies, woods borders, and road rights of way. Was widely used by Native Americans and early settlers for medicinal uses. Provides excellent wildlife food and cover. Dark-green summer foliage is followed by scarlet fall color and red berries. |
| Wild plum (<i>Prunus spp.</i>) | ✓ | ✓ | | ✓ | ✓ | ✓ | 25 | A small thicket-forming tree. One of the first trees to bloom in the spring. Produces a bright-red edible fruit. Provides excellent food and cover for wildlife. |
| Witch-hazel (<i>Hamamelis vernalis</i>) | ✓ | ✓ | | | ✓ | ✓ | 10 | Large shrub found in and along dry, rocky streambeds. Leaves are collected for medicinal uses. Shrub is valuable for wildlife food and cover, and for controlling erosion along streams. |

| Price Per Seedling | | | |
|--|----------------------|-------------------------------|--------|
| Species | Available in 10 only | Available in increments of 25 | |
| | | 25-75 | 100+ |
| Eastern white pine 2-0, Shortleaf pine, Loblolly pine, Pitch X loblolly pine | \$0.60 | \$0.28 | \$0.16 |
| Eastern white pine 3-0, Red pine, Norway spruce, Eastern red cedar | \$0.80 | \$0.40 | \$0.32 |
| Hardwood trees and shrubs | \$0.80 | \$0.40 | \$0.32 |
| Orders of multiple species of 10s or 25s cannot be combined for volume discount. | | | |

SEEDLING ORDER FORM

Phone orders are not accepted, but if you have questions about seedlings ordered on this form, contact the George O. White Nursery at 573-674-3229.

April 15, 2016, last order date

**Do not send money with your order.
You will be billed the correct amount.**

Date _____ *Example* ►

Name _____

Address _____

City and State

ZIP _____

Telephone _____

Email Address

SHIPPING ADDRESS (if different from above)
No PO boxes. All orders will be shipped through UPS.

Name _____

Address _____

City and State

ZIP

Telephone _____

SELECT DELIVERY METHOD BELOW

☐ **Ship my order** from the nursery during
February, March, April, or May.

(Circle one month above and check one week below)

| | February | March | April | May |
|--------|----------|-------|-------|-----|
| Week 1 | | | | |
| Week 2 | | | | |
| Week 3 | | | | |
| Week 4 | | | | |

☐ I will **pick up** my order at the George O. White Nursery near Licking, Missouri, during **February, March, April, or May.**

(Circle one month above and check one week below)

| | February | March | April | May |
|--------|----------|-------|-------|-----|
| Week 1 | | | | |
| Week 2 | | | | |
| Week 3 | | | | |
| Week 4 | | | | |

[illegible]☐ CHECK IF YOU WANT US TO SUBSTITUTE FOR SOLD-OUT ITEMS

My trees will be planted in _____ County.

HERITAGE CARD HOLDERS —

Get 15% discount up to \$20 off your order!

6010-7700-

Heritage Card Number (Forgot your number? Call 1-800-392-4115.)

Fax your order to 573-674-4047

To mail, cut off, fold, and add postage to opposite preaddressed side.

TAPE HERE

PLEASE
PLACE
STAMP
HERE

TREES
MISSOURI DEPARTMENT OF CONSERVATION
PO BOX 119
LICKING MO 65542-0119



FOLD
HERE

Trees Work: Fact or Fiction

Which one of the following statements is fiction and which are true? See if you can pick the liar out of the bunch. Hint: Only one is wrong.

1. The forest products industry contributed 7 billion dollars to Missouri's economy in the last year, which is more than the total net worth of Oprah Winfrey and Donald Trump combined.
2. In one year, an acre of trees can absorb as much carbon as is produced by a car driven from St. Joseph to Puxico and back ten times.
3. A 10 percent increase in large trees in a neighborhood has a corresponding drop in crime of 12 percent.
4. Your computer screen is comprised of 85 percent recycled wood products.

Answer: 1-3 are true and 4 is false.

FOLD
HERE



How to Plant Cottonwood and Willow Cuttings

Cottonwood and willow have the ability to sprout roots and leaves from a stick-like cutting. The cottonwood cutting is typically 18 inches long, and the willow 12

inches. Most of the cutting needs to be in the soil, so only leave 2 to 4 inches (about 2 buds) out of the ground. Also the cutting must be planted with the buds pointed upward. All of the cuttings in a bundle point the same way, so you will only have to look carefully at one cutting per bundle.

Trees Work!

The Missouri Department of Conservation wants you to know how Trees Work! Many of us appreciate the beauty of an oak releasing its tender spring leaves or a maple shading our deck. But we are often unaware of the real and valuable benefits those trees provide for our health, families, wallets, and environment. The Trees Work campaign lets Missourians know all the ways trees and forests work for you in your everyday life, and it provides information on how you can promote good forestry management no matter how little land you own.

Did you know that being around trees lowers your blood pressure and pulse rate? Kids perform better on tests and have reduced symptoms of ADHD after being in nature. Trees along streets raise home values by \$8,000 on average. At the same time that they provide habitat for wildlife, wood products, and shade for our homes, trees work in other incredibly important and surprising ways we are only beginning to understand.

Visit treeswork.org to learn more and get involved. Help us spread the message that trees work!

What is it? Buttonbush



Nancy Loewenstein, Auburn University, Bugwood.org

A buttonbush blossoms in the summer. To read more about ordering buttonbush seedlings, see Page 8.

Fax your order to 573-674-4047



TREES
MISSOURI DEPARTMENT OF CONSERVATION
PO BOX 119
LICKING MO 65542-0119

What is it?

The answer is revealed on Page 15.

